

## CLAIMS:

1. A method of manufacturing a flexible electronic device provided with a substrate having a first and an opposite second side and a thin-film electronic element, which method comprises the steps of:
  - providing the substrate comprising organic material;
  - 5 - attaching the substrate with its first side to a transparent and rigid carrier by an adhesive layer, thereby resulting in a stack of carrier, adhesive layer and substrate with first bonds between the adhesive layer and the substrate and with second bonds between the adhesive layer and the carrier, which adhesive layer comprises an initiator for initiating a cross-linking reaction;
  - 10 - applying layers on the second side of the substrate, in which layers the thin-film electronic element is defined,
  - initiating the cross-linking reaction in the adhesive layer, therewith modifying the strength of at least one of the first and the second bonds, and
  - delaminating the substrate from the carrier, therewith obtaining the device.
- 15 2. A method as claimed in Claim 1, wherein the initiation of the reaction takes place by heating, said reaction resulting in that the first bonds between the adhesive layer and the substrate become chemical bonds.
- 20 3. A method as claimed in Claim 1, wherein the initiation of the reaction takes place by irradiation so as to initiate a cross-linking reaction.
4. A method as claimed in Claim 3, characterized in that one of the layers being an active layer of semiconductor material, this active layer being protected from the adhesive  
25 layer through an opaque coating.
5. A method as claimed in Claim 3, wherein a heat treatment is given to the carrier and substrate after lamination, in which heat treatment the temperature is raised to a

temperature of at least a process temperature of any layer to be applied and at most a degradation temperature of the adhesive layer.

6. A method as claimed in Claim 1,2 or 3, wherein the adhesive layer comprises  
5 acrylate and acid groups that are coupled in the polymerisation or cross-linking reaction.
7. A method as claimed in Claim 1, wherein the carrier comprises a surface of glass or a glass-like material.
- 10 8. A method as claimed in Claim 1 or 3, wherein the adhesive layers comprises at least one dye.
9. A method as claimed in Claim 3, wherein the adhesive layer comprises a main polymeric component and a UV-sensitive reactive additive, which upon illumination with  
15 UV radiation will increase the glass transition temperature of the polymeric component.
10. A method as claimed in Claim 1, wherein the thin-film electronic element is a thin-film transistor provided with a source and a drain electrode mutually separated through a channel and a metallic gate electrode separated from the channel through a gate dielectric,  
20 wherein the metallic gate electrode acts as the opaque coating.
11. A flexible electronic device comprising a substrate having a first and an opposite second side, that is provided with an adhesive layer having a surface substantially without adhesive strength on the first side, and is provided with a thin-film electronic element  
25 on the second side.
12. A flexible electronic device as claimed in Claim 11, wherein the electronic element is a transistor.
- 30 13. A flexible electronic device as claimed in Claim 12, wherein the transistor comprises an organic semiconductor material.

14. A flexible electronic device as claimed in Claim 12 or 13, wherein a plurality of transistors and an electro-optical layer are present, therewith constituting a display, at least part of which transistors functioning as pixel transistors of the display.